



MARTIN LUTHER KING, JR. DAY OF SERVICE

Corporation for
**NATIONAL &
COMMUNITY
SERVICE** ★★ ★

Becoming a Science, Technology, Engineering, and Math (STEM) Mentor



The Challenge



Mentorship is often cited as a key strategy for exciting, supporting, and keeping students, young scientists, and engineers in the fields of science, technology, engineering, and math (STEM). This is particularly true for individuals who haven't historically participated in these areas— such as young women and underrepresented minorities.

Many community-based organizations do not have enough capacity to manage a large or sustainable number of volunteers, so they need you to organize yourself in coordination with them.

This toolkit will help you to address this community need by:

- Explaining associated terms
- Highlighting helpful resources
- Sharing effective planning steps
- Outlining project management tips
- Providing ideas for communicating your message

Sharing tips for reflection and reporting



Prepare

Learn Associated Terms

Before you jump-start the planning phase of your project, be sure you know the terms associated with the work you are about to do.



- **STEM:** STEM is an acronym that stands for Science, Technology, Engineering and Math. President Obama has articulated a clear priority for STEM education saying that, within a decade, American students must "move from the middle to the top of the pack in science and math."
- **STEM Mentor:** STEM Mentors are corporate professionals, college or graduate students, and / or teachers who work in the area of science, technology, engineering, or math. The purpose of the STEM mentor is to help increase middle school students knowledge, skills, and interest in STEM areas and to build relationships that support student self-efficacy.

Identify a Location

Many existing service groups have identified community needs and built the expertise to provide solutions.

- Search for (<http://www.nsf.gov/awards/PAESMEM/recipients.cfm>) national and local STEM Mentoring organizations
- Find STEM professionals who are volunteering in your area (<http://www.citizenschools.org/>).
- Search additional databases (<http://www.ngcproject.org/programs?page=3>) for other STEM-based organizations (<http://caise.insci.org/ise-spotlights>) that may be looking for mentors.

If no STEM mentoring organizations exist in your community, contact university groups, local educational authorities, or youth-serving organizations.

Browse Helpful Resources

Mentor Guides

- Entering Mentoring: A Seminar to Train a New Generation of Scientists (Mentor Guide) (http://www.hhmi.org/resources/labmanagement/downloads/entering_mentoring.pdf) , Wisconsin Program for Scientific Teaching, *Howard Hughes Medical Institute* -
- DOD StarBase STEM Mentoring Guide (<http://dodstarbase.org/sites/default/files/STEM%20Mentor%20Guidebook.pdf>)
- Get the Mentoring You Deserve (<http://www.awis.affiniscape.com/displaycommon.cfm?an=1&subarticlenbr=450>) , *Association for Women in Science* (Mentor Guide)

Mentor Resources

- [American Association of University Women](http://www.aauw.org/what-we-do/stem-education/) (<http://www.aauw.org/what-we-do/stem-education/>)
- [National Center for Women in IT](http://www.ncwit.org/resources/evaluating-mentoring-program-guide) (<http://www.ncwit.org/resources/evaluating-mentoring-program-guide>) (Mentoring Resource List)
- [Serve.gov Tips for being a good STEM Mentor](http://www.serve.gov/sites/default/files/ctools/STEM_mentoring_toolkit.pdf) (http://www.serve.gov/sites/default/files/ctools/STEM_mentoring_toolkit.pdf)

Mentor Networks

- [Citizen Schools](http://www.citizenschools.org/) (<http://www.citizenschools.org/>)
- [COACH \(Mentor Network\)](http://coach.uoregon.edu/coach/index.php?id=8) (<http://coach.uoregon.edu/coach/index.php?id=8>)
- [MentorNet](http://www.mentomet.net/) (<http://www.mentomet.net/>)
- [ACE Mentor Program](http://www.acementor.org/) (<http://www.acementor.org/>)



Plan

A successful group effort requires a motivated team whose members agree upon clearly defined tasks, set reachable goals, and act with inspiration and purpose.

Build a Team

- Start off planning with folks you know, and ask them to tell others to join your efforts.
- Meet regularly, especially as MLK Day approaches.
- Assign concrete tasks to keep everyone motivated and on track.
- As you work, talk about the parallels between Dr. Martin Luther King, Jr.'s impact and your own.



Set Goals

Build your planning team

Whether you are a team of few or many, a planning team will help you execute all aspects of your project. Below are some roles your planning team can take on. If it's only you: reach out to volunteers past and present to fulfill these roles:

- Project Development
- Volunteer Recruitment and Management Team
- Communications Team
- VIP/Leadership Engagement Team
- Fundraising Team

- Event Team

- Set a service goal and hold yourself accountable. Commit as individuals and as a team to mentoring young scientists and engineers a certain number of times per month. Continuity and dependability are important in mentoring students.
- Record these goals and make sure you can meet them. Ensure you and your team choose goals you can all agree on.

Plan Your Project

There are a number of ways that you can plan for participation in STEM in your community. Here are a few ideas for planning tasks to complete:

- Reach out to local schools and teachers to see if they can help identify particular needs or local resources, or ways that your efforts can be most useful to students.
- Decide on or agree to participate in regular meeting times, maybe once per month. Regular meeting times are the core of a STEM program.
- Review the mentor guides and resources (above) for ideas on how to design a curriculum or add on to an existing one.
- [Incorporate learning into any service you do \(node/292\)](#) by sharing information about the issues your project addresses and about Dr. King's work and teachings as it relates to the issue.

Manage Your Project

The following tips will assist you with managing a successful service project.

- Utilize to do lists for the days leading up to, day of and post event day.
- Even if some volunteers will be doing door-to-door distribution of materials, it is important that the group start off the day together and review what you are trying to accomplish.
- Make sure team leader or coordinators are at the site early, the site is set up, and they are ready to greet volunteers or community members as they arrive.
 - Even if some volunteers will be doing door-to-door distribution of materials, it is important that the group start off the day together and review what you are trying to accomplish.
 - Officially welcome everyone and talk about the purpose of the event: promoting STEM in honor of Dr. Martin Luther King, Jr.
 - Organize volunteers into different work teams. For example, have different people greeting participants, handing out refreshments, responding to questions, or distributing materials.
 - Build moments of reflection into your planned activities. Share stories and words from Dr. King and about any insights you've gained so far [about the connection between your service and Dr. King's teachings \(node/292\)](#).

- Document the day with photos or video and be sure to have participants sign a photo release form.
- Conduct your event, offering continuous encouragement to participants.

Raise Resources for Equipment/Supplies

Involving and engaging kids

Whether kids show up to volunteer or they unexpectedly arrive with parents who can benefit from your service, have activities that they can do such as:

- Carry light objects
- Decorate cards, lunch bags, or placemats
- Serve refreshments to the adults hard at work
- Organize or tidy the project spaces
- Watch a film about Dr. Martin Luther King, Jr.

See [Engaging Kids in Service \(node/296\)](#) for more on kid-friendly service projects.

What supplies will you need to promote STEM in your community?

- Seek financial and in-kind donations from businesses for the supplies you'll need to run your project
- Solicit funds from team members and/or others to purchase items you need for successful MLK Day
- Purchase the necessary supplies prior to the service day so they're ready to go on MLK Day.



Communicate Your Message

Communication is a key part of any service project. You will need to communicate about:

- Getting volunteers to help you plan or implement your service activity
- Building partnerships with potential collaborators or sponsors
- Raising funds or in-kind donations for your project
- Informing potential participants who might benefit from your service

Publicize your event using a combination of low-tech outreach, traditional, and social media.

Low-tech Outreach

- Post flyers in public places
- Use community bulletin boards
- Ask area businesses to spread the word (e.g. flyers at registers or posters in store windows)
- Make announcements at schools, churches, or civic groups

Traditional Media

- Invite the news media (print and broadcast) to report about your upcoming event or to attend and share information about accomplishments. Use a [press release \(node/252\)](#) or a [media advisory \(node/252\)](#).
- Make follow-up phone calls to the news media
- Place free ads in the community affairs section of your local papers

Digital and Social Media

- Submit your event to local online calendars and LISTSERVs
- Promote your project, and document the day, through Facebook, Tweets, and pictures
- Reach out to a local blogger and ask if he/she might cover the event



Share Impact

Assess and Reflect

Assess and reflect on the project after it is completed. Host an official debriefing meeting for team members after the service day. Ask the team to reflect on the following questions:

- Examine the goals you set for yourselves. Which ones did you meet? Which exceeded your expectations? And which goals did you not quite reach?
- What did you accomplish?
- Who did your work impact in your community?
- What went well and what could be improved for next time?
- What STE resources or outreach methods would you use again in the future? Which ones would you forego?
- Consider what doing this work on MLK Day, in particular, meant to your community.



- Go back to your initial investigation into the local problems you elected to help tackle and ask more questions. For example:
If you helped an existing organization as a STEM volunteer in your community, what could you do to expand their programming, or offer more afterschool activities? With what other organizations or programs in your community could you partner?

Share Your Story

We know you might not like to brag, but please do! You may inspire others to organize a STEM event once they hear what you accomplished. Share your service accomplishments with:

- Volunteers, financial and in-kind supporters and constituents groups; the accomplishments could accompany a thank you letter
- The media; thank all media who reported on your planned activities or covered you service project along with sharing accomplishments from the project and any plans for the future
- The Corporation for National and Community Service; learn about multiple ways to [share your story](http://www.serve.gov/?q=site-page/share) (<http://www.serve.gov/?q=site-page/share>)

33 reads

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